

TIN KNOCKER

TK 816 & 1016 LEAF BRAKE

INSTRUCTIONS & PARTS DIAGRAM



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**TIN KNOCKER
SAFETY RULES
TK 816 & 1016 LEAF BRAKE**

1. Never use a machine or tool for anything other than its intended purpose. Use the proper tool and equipment for the task.

2. Do not operate the machine in excess of its rated capacity.

WARRANTY

All new SME machines are sold with a one-year limited warranty, on factory defective parts. The warranty is limited to the original user. SME at its option, will repair, replace or refund the purchase price of any part, tool or machine that fails during the warranty period. SME will pay normal shipping charges for replacement parts. After 90 days from date of purchase, all express or overnight delivery charges are the responsibility of the customer. Purchaser must contact SME, at the address below, any written claim, with proof of original purchase. Replacement parts will be invoiced to purchaser and credit issued when the failed part is delivered to SME. Removal, reinstallation or replacement parts shall be at purchasers' / user's expense. Failure due to improper use of the machine voids the warranty.

NOTE: This machine has been tested and adjusted prior to shipment, but can and often does require readjustment due to vibration and bouncing during transport. Readjustment can easily be done by following the procedures described within. These are procedures with which you, as a user, should be familiar, as you will use them repeatedly over the life use of the machine. If you have difficulty in performing these procedures, we are here to support you.

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TK 816 & 1016 Leaf Brake,

RECEIVING THE MACHINE Inspect before signing Bill of Lading.

Upon receipt closely examine the Leaf Brake for damage during shipment. Any loss or damage should be noted in detail on the delivery receipt and reported to your distributor immediately. Free replacement from TK International is dependant upon the notation and the Bill of Lading on delivery slip.

INSTALLING THE MACHINE

Locate the Leaf Brake in a well-lighted area on a solid, level floor. The Leaf Brake must be securely bolted to the floor. Be sure you have adequate room to swing both handles and Bending Leaf.

PRECAUTIONS

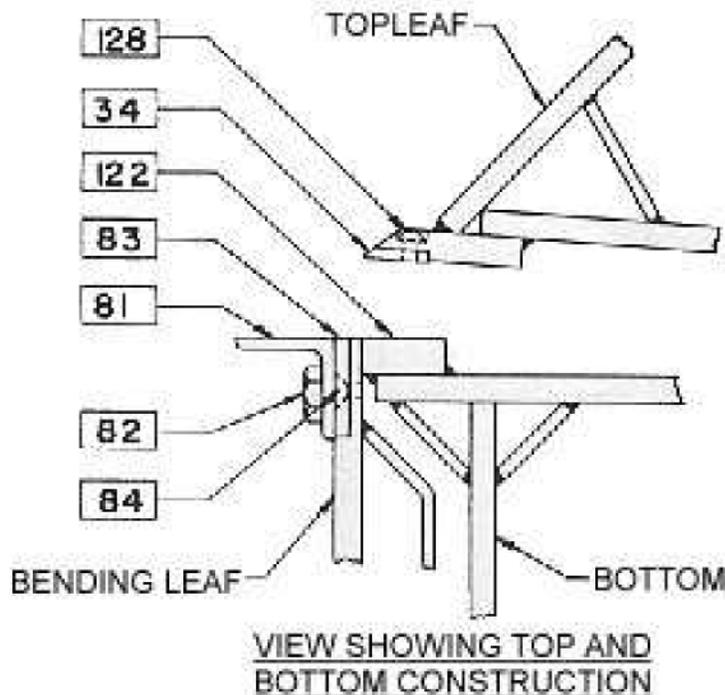
DO NOT use the Leaf Brake to bend rods, nails or wires. This will cause damage to the edge of the top blade. DO NOT exceed the capacity of the Leaf Brake.

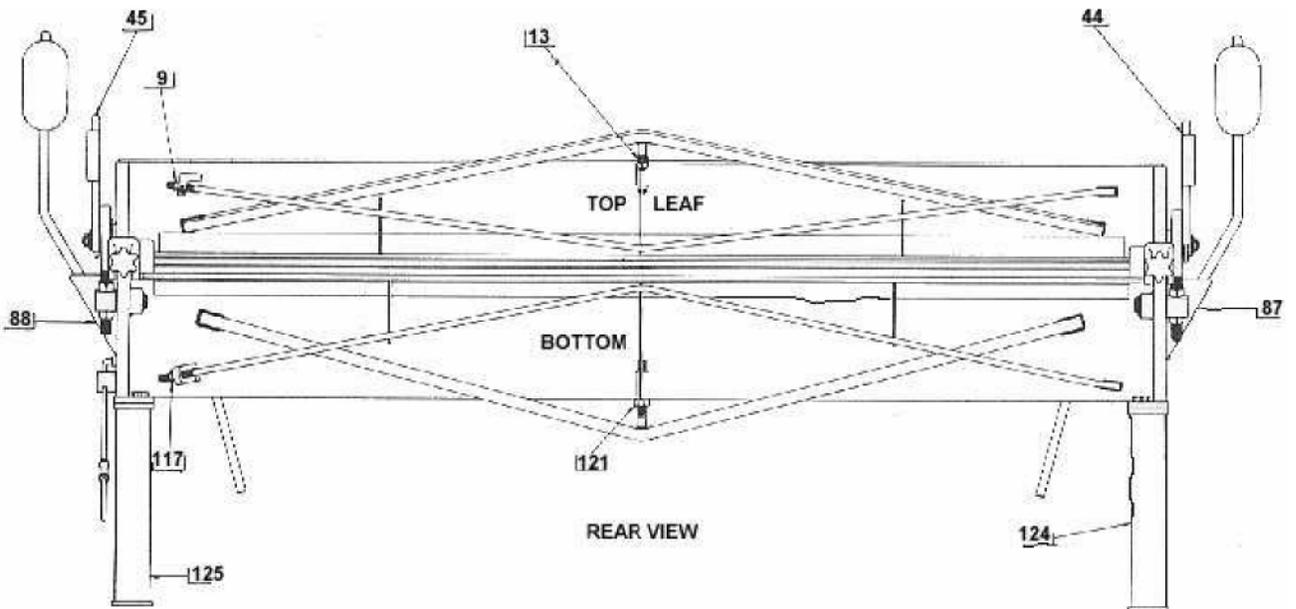
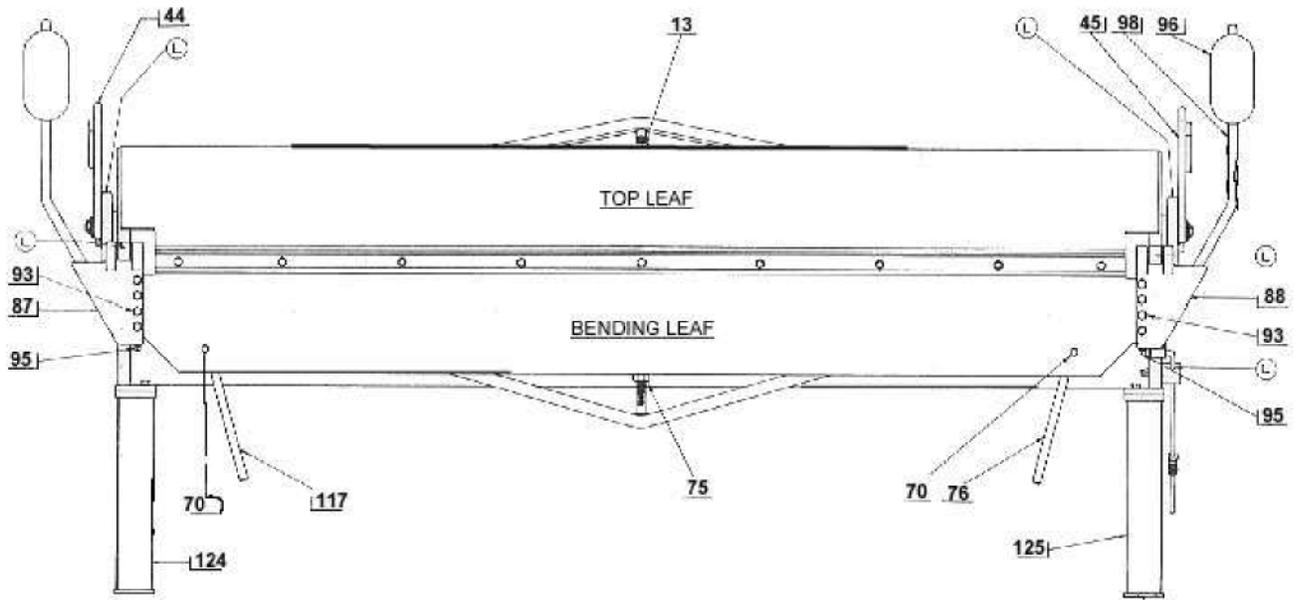
OPERATING THE MACHINE

BENDING EDGE ALIGNMENT: When Bending Leaf is in down position, edge of Leaf should be flush with edge of Bottom Bar (122).

To maintain this alignment, ensure brake sets level on floor:

1. Adjust Bending Leaf center with Truss Nut (75).
2. Adjust Bottom Center with Truss Nut (121).
3. Adjust Bending Leaf Ends with Hinge Adjustment Screws (95). Loosen Hinge Bolts (93) before and tighten again after adjustment.





BOWED BENDING LEAF ADJUSTMENT

If bending Leaf becomes bowed in center after use, tighten both Tension Bolts (70) until center is brought into a straight line.

LUBRICATION

Lubricate occasionally with SAE-30 oil where indicated by symbol L except for Top Adjustment Screws (22) and Nuts (31) which are lubricated by filling Saddle (28/29) cavities with grease.

ADJUSTING FOR METAL THICKNESS

Clearance for bends is obtained by moving Top Leaf back at bending edge. If material to be bent is within four gauges of capacity, move Top Leaf back twice the thickness of the material. With lighter material, move Top Leaf proportionately forward if sharper bends are desired:

1. Unclamp Handles (44/45) slightly.
2. Adjust Top Leaf with Top Adjustment Handles (23).

Clamping pressure of the Links (56/57) is changed by adjusting the Nuts (60).

DUPLICATE BENDS

Adjustable Stop Gauge (100) may be positioned at any point on Rod (104) by means of Lock Bolt (102) to limit the degree of bend.

COUNTERBALANCE

Counterweight (96) can be raised or lowered on Rod (98) to properly counterbalance the Bending Leaf.

OVER BENDING ADJUSTMENT

If sheet bends over further on one side than on the other, set the Top Leaf back on the end where sheet is over bending.

1. Unclamp Handles (44/45) slightly on side that is over bending.
2. Adjust Top Leaf with Top Adjustment Handle (23).
3. Reclamp Handle (44/45).

CREEPING TOP LEAF ADJUSTMENTS

Should Top Leaf creep forward when clamping material:

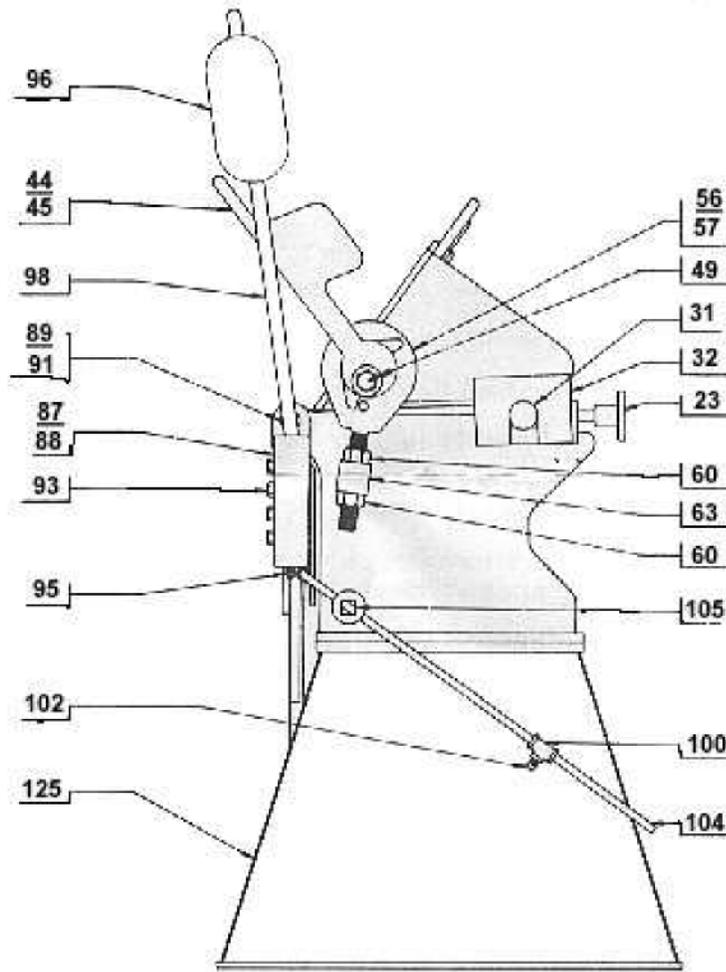
1. Check that brake sets level on floor.
2. Ensure that top Adjustment Screw Collars (25) are locked into position so that the Screws (22) cannot move back and forth in Saddles (28/29) – front shoulder of Screws and face of Collars must be snug against Saddles with minimum clearance.
3. If still creeping, wedge under rear of Leg (124/125) at end that creeps until stopped. Replace wedge with permanent block of correct height.

CAPACITY

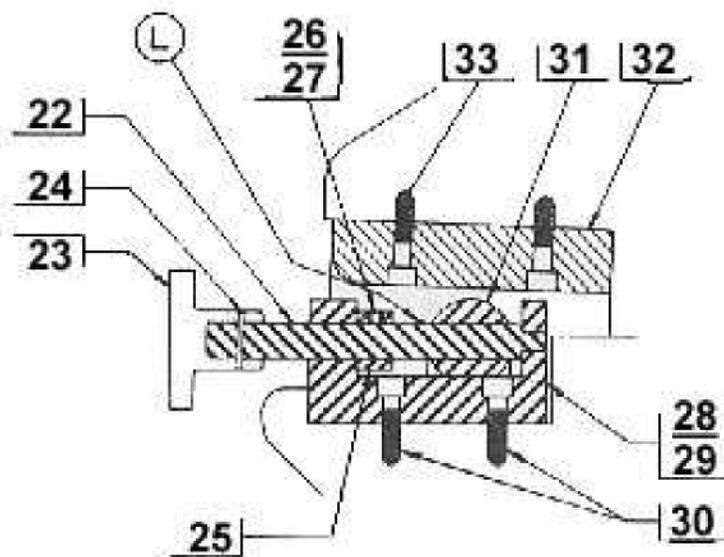
The bending capacity of the brake is determined by the bending edge thickness provided by the Bending Leaf Bars (81/83) when mounted on Leaf.

1. Insert Bar (83) with Angle Bar (81) allows the full rated 1” minimum flange on capacity material.
2. Insert Bar alone without Angle Bar reduces capacity of brake four gauges.
3. Removing both Insert Bar and Angle Bar reduces capacity of brake seven gauges.

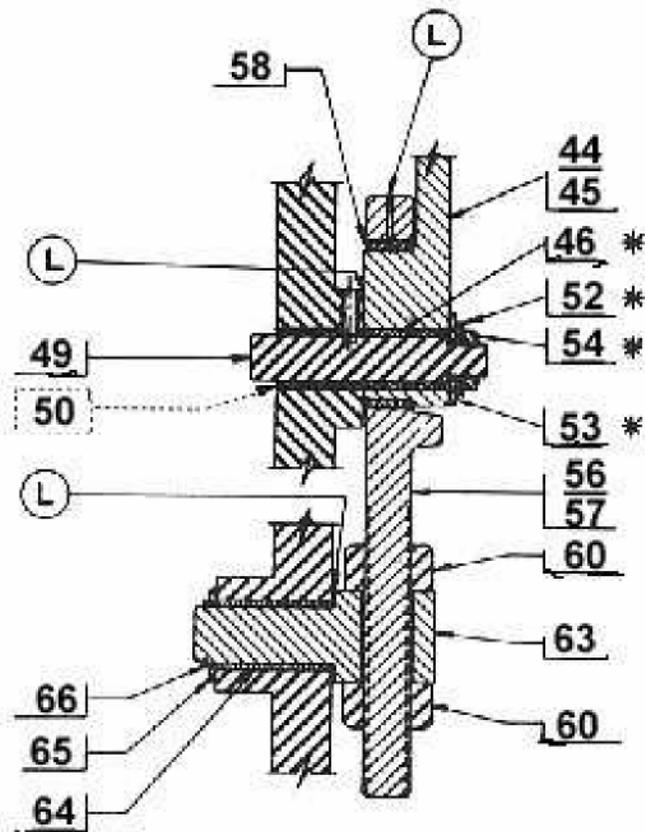
These bars are removed only to make narrow offset bends.



RIGHT HAND END VIEW



CROSS SECTION THRU
ADJUSTING MECHANISM



**CROSS SECTION THRU LINK
AND LINK PIVOT BLOCK**

CAUTIONS

Bend short pieces of material in center of brake to equalize the strain. Never bend against seams unless Links (56/57) are adjusted to clamp the full multiple thickness of seam; and, Top Leaf is set back for clearance of the same full multiple thickness.

Always have both angle Bar (81) and Insert Bar (83) mounted to leaf when making capacity bends.

When forming sections of wide girth such as cornices, to equalize the buckles in the sheet:

1. Start bend near the center of sheet, or,
2. Make a kink in the opposite end of sheet from the bend first made.

Sheets are not always perfectly flat and a buckle left in one end while the other is straightened by clamping in the brake, will throw the first bend out of line when it, in turn, is straightened. Always use material with square-sheared edges –rolled-edges will cause material to bow. Never use Brake to bend rods – these will nick Nose Bar. Always adjust for differences in gauges – especially never force-clamp the Top on material heavier than that for which the Links and Top are set by using pipe extensions on Clamp Handles for leverage.

Parts For 816 & 1016 Leaf Brakes				
Fine No.	Part No.	Part No.	Description	No. REQ"D.
22	816001	1016001	Top Adj Screw	
23/24	816002	1016002	Top Adj Handle/Pin.	
25/26/27	816003	1016003	Top Adj Collar/Lock Screw Rod	
28/29/30	816004	1016004	Top Adj Saddle L/R	
31	816005	1016005	Top Adj Nut	
32/33	816006	1016006	Top Adj Slide/Bolts	
34	816007	1016007	Nose Bar-sharp	
44/45	816008	1016008	Clamp Handle L/R	
46	816009	1016009	Clamp Handle Brg	
49	816010	1016010	Clamp Shaft	
50	816011	1016011	Clamp Shaft Brg	
52	816012	1016012	Clamp Shaft Spring	
53	816013	1016013	Clamp Shaft Washer	
54	816014	1016014	Clamp Shaft Nut	
56/57	816015	1016015	Link L/R	
58	816016	1016016	Link Brg	
60	816017	1016017	Link Adj Nuts	
63	816018	1016018	Pivot Shaft	
64	816019	1016019	Pivot Shaft Brg	
65	816020	1016020	Pivot Shaft Washer	
66	816021	1016021	Pivot Shaft Lock	
81/82	816022	1016022	Angle Bar/Bolt	
83/84	816023	1016023	Insert Bar/Screw	
85/86	816024	1016024	Former/Clamp	
87/88	816025	1016025	Hinge L/R	
89	816026	1016026	Hinge Pin	
91	816027	1016027	Hing Pin Brg	
93	816028	1016028	Hinge Bolt	
95	816029	1016029	Hing Adj Screw	
96	816030	1016030	Counterweight	
98	816031	1016031	Counterweight Rod	
100/102	816032	1016032	Stop Gauge/Lock Bolt	
104	816033	1016033	Gauge Rod	
105	816034	1016034	Gauge Guide	
122	816035	1016035	Bottom Bar	
124/125	816036	1016036	Leg L/R	
128	816037	1016037	Nose Bar Screws	